



- 14th century, Italian monks developed the art of grinding lenses; these lenses were made into spectacles to improve the monks' failing eyesight
- In 1590, Hans and Zacharias Janssen (Dutch lens grinders) mounted 2 lenses in a tube to produce the **first compound microscope** (one with 2 main lenses).
- In 1665, Robert Hooke used a crude compound microscope to observe thin slices of cork cells from 'cork oak' trees. Cork is the very fast growing bark of the tree. The bark can be periodically stripped from a tree and used to build ships as it is a very durable wood that resists rotting from water and mold when wood is constantly wet. Hooke may have studied cork because it was economically very valuable to the English and their ship-building industry.
- Around the same time as Hooke, Anton van Leeuwenhoek used a simple microscope (1 lens) to look at blood, rainwater, teeth scrapings, etc.
- A Light microscope - is a compound microscope that uses mirrors or a light source to better view a specimen.
- Transmission electron microscope was invented in the 1930's. It forms an image by electrons passing through a specimen. It is capable of higher resolution than the scanning electron microscope.
- Scanning electron microscope was developed later than transmission electron microscope. It forms an image by having electrons bombard the surface of the specimen and allowing the secondary (lower energy) electrons to be emitted.



[Print this page](#) in Adobe Acrobat format.



Visit the [Utah State 7th Grade Integrated Science Core Curriculum Page](#).

Updated June 15, 2000 by: [Glen Westbroek](#)

[Science Home Page](#) | [Curriculum Home Page](#) | [Core Home Page](#) | [USOE Home Page](#)

Copyright © by the Utah State Office of Education